

6,250; interior of Southern States, 3,515; Lake region, 7,100; Ohio valley, 4,750; Northwest, 6,910.

The following are the maximum velocities at several stations: Mt. Washington, November 17th, 8 a. m., 150 miles per hour; 12:22 p. m., 144; 29th, 3:40 p. m., 168 miles per hour; 5 p. m., 156, and 6 p. m., 170; the highest velocity reported from any station of the Signal Service. A velocity of 65 miles per hour occurred at Boston during the storm of the 28th and 29th, which is also the highest velocity reported from that station. A velocity of 54 miles per hour is reported from Indianola during the "norther" of the 29th.

### WATER TEMPERATURES.

The monthly maximum and minimum temperatures of water in the lakes, rivers and on the Gulf and Atlantic coast, from observations taken at the bottom, may be found in the table on Chart No. II. These figures show that the air has been colder than the water at nearly all stations, the only exceptions being Key West, San Francisco, Toledo, Savannah and St. Louis, for which places the mean monthly temperature of the two elements is the same. It is, however, only in the extreme northern sections of the country that a considerable difference is shown, and at most stations in the Southern States and on the Western rivers the water has averaged but two degrees warmer than the air. At the stations in the northern portion of the Upper Lake region, on Lake Champlain and the coast of Maine the water has averaged from seven to thirteen degrees above that of the air.

### NAVIGATION.

On Chart No. III is given the usual table, showing the highest and lowest water-marks, from which it will be seen that the Ohio and the lower Mississippi rivers rose slowly during the latter portion of the month, and that the upper Mississippi and lower Missouri declined and were unusually low at the close of the month.

The following notes, obtained from the reports of the Observers, give the time of the closing of navigation, condition of harbors as regards the ice, and depth of water in rivers: St. Paul, Minn., anchor ice in river 16th and 17th; navigation closed 17th; frozen over 21st. La Crosse, the water was low on the Eau Claire Rapids 8th; floating ice 17th, 18th, 19th and 20th; closed 22d. Dubuque, Iowa, ice in river on the 8th; full of ice 19th and 21st. Davenport, Iowa, floating ice 21st. Rock Island, Ill., the ferry-boat went into winter quarters 27th; river closed 29th. On the 27th the water was lower in the Mississippi river than ever before known. Keokuk, Iowa, ice in river sufficient for skating 21st; floating ice 22d, 24th, 26th, 29th and 30th; navigation closed 27th; not sufficient water for boats to run on the 30th. St. Louis, Mo., floating ice 30th. At Fort Sully and Yankton, D. T., the Missouri river was frozen up the 15th. At Omaha, Neb., there was floating ice 16th, 17th and 19th; river gorged 18th and 20th; frozen over the 24th. Leavenworth, Kan., frozen over the 23d. Plattsmouth, Neb., floating ice 15th and 16th and west channel gorged 17th and 21st. At Breckenridge, Minn., the Red River of the North closed on the 3d. Moorhead, Minn., floating ice on the 1st; frozen over 16th. Pembina, D. T., navigation closed on the 4th. Hennepin, Ill., the Illinois river was closed by ice 24th. Wappinger's Falls, N. Y., the Hudson about closed 30th. South Hartford, N. Y., canal navigation about closed 30th. Brownsville, Penn., creeks frozen over 30th. West Charlotte, Vt., anchor ice in Lake Champlain, 30th. Shelburne, N. H., the Androscoggin was crossed by persons on foot 22d and with horses 27th. Gardiner, Me., the Kennebec river was closed 22d. Alpena, Mich., Thunder Bay river was frozen over 22d and the harbor frozen the 29th. Cleveland, Ohio, ice formed on the canal and river 30th.